AMENDMENTS TO THE CLAIMS

1. (Currently Amended) ~~A~~ An image data processor for a liquid-crystal ~~driving circuit~~ display that generates image data determining voltages applied to a liquid crystal from gray-scale values of an input image made up of a series of frames, the image ~~data determining voltages applied to a liquid crystal to display the input image, the liquid crystal driving circuit~~ processor comprising:

an encoding unit for encoding ~~a present image corresponding to a frame of the input image~~ an input image data of a present frame and outputting an encoded image ~~corresponding to the present image~~ data;

a first decoding unit for decoding the encoded image data and outputting a first decoded image data corresponding to the present ~~image~~ frame;

a delay unit for delaying the encoded image for an interval corresponding to one frame and outputting a delayed encoded image data;

a second decoding unit for decoding the delayed encoded image data and outputting a second decoded image data corresponding to a previous frame;

a compensation data generator for generating compensation data for adjusting the gray-scale values ~~in~~ of the present ~~image~~ frame according to the first decoded image data and the second decoded image data; and

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a compensation unit for generating said image data according to the ~~present~~ input image data and the compensation data.

2. (Currently Amended) The ~~liquid-crystal driving circuit~~ image data processor of claim 1, wherein

the compensation data cause the liquid crystal to reach transmissivity values corresponding to the gray-scale values of the ~~present~~ input image within substantially one frame interval.

3. (Currently Amended) The ~~liquid-crystal driving~~ image data processor circuit of claim 1, wherein the compensation data generator includes a data conversion unit for reducing the number of bits ~~with which the gray-scale values~~ of at least one of the first decoded image data and the second decoded image ~~are quantized~~ data, and outputting third decoded image data corresponding to the first image data and fourth decoded image data corresponding to the second decoded image data; and

a unit for generating the compensation data based on the third decoded image data and the fourth decoded image data.

4. (Currently Amended) ~~The liquid-crystal driving circuit~~ The image data processor of claim 3, wherein the compensation data generator further includes:

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a unit for generating ~~first internal compensation data and second internal compensation data, using the decoded image quantized with the reduced number of bits~~ an interpolation coefficient from the third decoded image data and the fourth decoded image data; and

a compensation data interpolation unit for calculating an interpolated value of the compensation data ~~by interpolation from the first internal compensation data and the second internal compensation data~~ using the interpolation coefficient.

5. (Currently Amended) ~~The liquid crystal driving circuit~~ The image data processor of claim 1, wherein the compensation data generator includes:

an error decision unit for detecting differences between the first decoded image data and the ~~present~~ input image data; and

a limiting unit for limiting the compensation data according to the detected differences.

6. (Currently Amended) The ~~liquid crystal driving circuit~~ image data processor of claim 1, wherein the compensation data generator includes:

an error decision unit for detecting differences between the first decoded image data and the ~~present~~ input image data; and

a data conversion unit for adding the detected differences to at least one of the first decoded image data and the second decoded image data, and

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outputting fifth decoded image data corresponding to the first decoded image data and sixth decoded image data corresponding to the second image data; and

a unit for generating the compensation data according to the fifth decoded image data and the sixth decoded image data.

7. (Currently Amended) The image processor ~~The liquid-crystal driving circuit~~ of claim 1, further comprising a band-limiting unit for attenuating a predetermined frequency component included in the ~~present~~ input image data,

wherein the encoding unit ~~encoding~~ encodes the output of the band-limiting unit.

8. (Currently Amended) The ~~liquid-crystal driving circuit~~ image processor of claim 1, further comprising a noise rejection unit for attenuating a noise component included in the ~~present~~ input image data,

wherein the encoding unit ~~encoding~~ encodes the output of the noise rejection unit.

9. (Canceled)

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10. (Currently Amended) ~~A liquid-crystal driving circuit~~ An image data processor for liquid-crystal display that generates image data determining voltages applied to a liquid crystal from gray-scale values of an input image made up of a series of frames, the ~~gray-scale values being quantized with a certain number of bits, the image data determining voltages applied to a liquid crystal to display the input image, the liquid-crystal driving circuit~~ image data processor comprising:

a data conversion unit for reducing the number of bits ~~with which the gray-scale values of a present image corresponding to a frame of the input image are quantized~~ of an input image data of a present frame, thereby generating a first converted image data corresponding to the present ~~image~~ frame;

a delay unit for delaying the first converted image data for an interval corresponding to one frame and outputting a second ~~image~~ converted image data corresponding to a previous frame;

a compensation data generator for generating compensation data for adjusting the gray-scale values ~~in~~ of the present ~~image~~ frame according to the first converted image data and the second converted image data; and

a compensation unit for generating said image data according to the ~~present~~ input image data and the compensation image data.

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11. (Currently Amended) The ~~liquid-crystal driving circuit~~ image processor of claim 10, wherein the compensation data cause the liquid crystal to reach transmissivity values corresponding to the gray-scale values of the ~~present~~ input image within substantially one frame interval.

12. (Currently Amended) ~~A~~ An image data processor for a liquid-crystal ~~driving circuit~~ display that generates image data determining voltages applied to a liquid crystal from gray-scale values of an input image made up of a series of frames, the image ~~data determining voltages applied to a liquid crystal to display the input image, the liquid-crystal driving circuit~~ processor comprising:

an encoding unit for encoding ~~a present image corresponding to a frame of the input image~~ an input image data of a present frame and outputting a first encoded image ~~corresponding to the present image~~ data;

a delay unit for delaying the first encoded image data for an interval corresponding to one frame and outputting a second encoded image data;

a ~~first~~ decoding unit for decoding the second encoded image data and outputting a decoded image data corresponding to a ~~preceding~~ previous frame ~~of the input image~~;

a compensation data generator for generating compensation data for adjusting the gray-scale values ~~in~~ of the present ~~image~~ frame according to the ~~present~~ input image data and the decoded image data; and

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a compensation unit for generating said image data according to the ~~present~~ input image data and the compensation data.

13. (Currently Amended) The ~~liquid-crystal driving circuit~~ image data processor of claim 12, wherein the compensation data cause the liquid crystal to reach transmissivity values corresponding to the gray-scale values of the ~~present~~ input image within substantially one frame interval.

14. (Currently Amended) The ~~liquid-crystal driving circuit~~ image processor of claim 12, ~~wherein the compensation data generator includes~~ further comprising a limiting unit for setting the value of the compensation data to zero when the first encoded image data and the second encoded image data are substantially identical.

15. (Canceled)

16. (New) An image data processor for a liquid-crystal display that generates image data determining voltages applied to a liquid crystal from gray-scale values of an input image made up of a series of frames, the image data processor comprising:

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an encoding unit for encoding the image data of a frame to be displayed on a display unit and outputting an encoded image data;

a first decoding unit for decoding the encoded image data and outputting a first decoded image data corresponding to the frame;

a delay unit for delaying the encoded image for one frame interval and outputting a delayed encoded image data;

a second decoding unit for decoding the delayed encoded image data and outputting a second decoded image data corresponding to a previous frame;

a compensation data generator for generating compensation data for adjusting the gray-scaly values of a next frame according to the first decoded image data and the second decoded image data;

a compensation unit for generating the image data which determines the gray-scale values of the next frame according to the compensation data and an input image data of the next frame.

17. (New) The image data processor of claim 16, wherein the compensation data cause the liquid crystal to reach transmissivity values corresponding to the gray-scale values of the input image within substantially one frame interval.

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18. (New) A method of image data processing for generating image data determining voltages applied to a liquid crystal from gray-scale values of an input image made up of a series of frames, the method comprising:

encoding an input image data of a present frame and outputting an encoded image data;

decoding the encoded image data and outputting a first decoded image data corresponding to the present frame;

delaying the encoded image for an interval corresponding to one frame and outputting a delayed encoded image data;

decoding the delayed encoded image data and outputting a second decoded image data corresponding to a previous frame;

generating compensation data for adjusting the gray-scale values of the present frame according to the first decoded image and the second decoded image; and

generating said image data according to the input image data and the compensation data.

19. (New) The method of claim 18, wherein the compensation data is generated by:

reducing the number of bits of at least one of the first decoded image data and the second decoded image data to generate third decoded image data

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corresponding to the first image data and fourth decoded image data corresponding to the second decoded image data; and

generating the compensation data based on the third decoded image data and the fourth decoded image data.

20. (New) The method of claim 19, wherein the compensation data is generated by:

generating an interpolation coefficient from the third decoded image data and the fourth decoded image data; and

calculating an interpolated value of the compensation data using the interpolation coefficient.

21. (New) The method of claim 18, wherein the compensation data is generated:

detecting differences between the first decoded image data and the input image data; and

limiting the compensation data according to the detected differences.

22. (New) The method of claim 18, wherein the compensation data is generated by:

detecting differences between the first decoded image data and the input image data; and

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adding the detected differences to at least one of the first decoded image data and the second decoded image data, and outputting fifth decoded image data corresponding to the first decoded image data and sixth decoded image data corresponding to the second image data; and

generating the compensation data according to the fifth decoded image data and the sixth decoded image data.

23. (New) The method of claim 1, further comprising attenuating a noise component included in the input image data,

wherein the input image data is encoded after attenuating the noise component.

24. (New) A method of image data processing for generating image data determining voltages applied to a liquid crystal from gray-scale values of an input image made up of a series of frames, the method comprising:

reducing the number of bits of an input image data of a present frame, thereby generating a first converted image data corresponding to the present frame;

delaying the first converted image data for an interval corresponding to one frame and outputting a second converted image data corresponding to a previous frame;

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generating compensation data for adjusting the gray-scale values of the present frame according to the first converted image data and the second converted image data; and

generating said image data according to the input image data and the compensation image data.

25. (New) A method of image data processing for generating image data determining voltages applied to a liquid crystal from gray-scale values of an input image made up of a series of frames, the method comprising:

encoding an input image data of a present frame and outputting a first encoded image data;

delaying the first encoded image data for an interval corresponding to one frame and outputting a second encoded image data;

decoding the second encoded image data and outputting a decoded image data corresponding to a previous frame;

generating compensation data for adjusting the gray-scale values of the present frame according to the input image data and the decoded image data; and

generating said image data according to the input image data and the compensation data.

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26. (New) The method of claim 25, wherein the value of the compensation data is set to zero when the first encoded image data and the second encoded image data are substantially identical.

27. (New) A method of image data processing for generating image data determining voltages applied to a liquid crystal from gray-scale values of an input image made up of a series of frames, the method comprising:

encoding the image data of a frame to be displayed on a display unit and outputting an encoded image data;

decoding the encoded image data and outputting a first decoded image data corresponding to the frame;

delaying the encoded image for one frame interval and outputting a delayed encoded image data;

decoding the delayed encoded image data and outputting a second decoded image data corresponding to a previous frame;

generating compensation data for adjusting the gray-scaly values of a next according to the first decoded image data and the second decoded image data;

generating the image data which determines the gray-scale values of the next frame according to the compensation data and an input image data of the next frame.

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28. (New) An image data processor comprising:

an encoding unit for encoding an input image data of a present frame and outputting an encoded image data;

a first decoding unit for decoding the encoded image data and outputting a first decoded image data corresponding to the present frame;

a delay unit for delaying the encoded image for an interval corresponding to one frame and outputting a delayed encoded image data;

a second decoding unit for decoding the delayed encoded image data and outputting a second decoded image data corresponding to a previous frame; and

a processing unit for processing the input image data using the first decoded image and the second decoded image data.

29. (New) A method of image data processing comprising:

encoding an input image data of a present frame and outputting an encoded image data;

decoding the encoded image data and outputting a first decoded image data corresponding to the present frame;

delaying the encoded image for an interval corresponding to one frame and outputting a delayed encoded image data;

decoding the delayed encoded image data and outputting a second decoded image data corresponding to a previous frame;

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processing the input image data using the first decoded image and the second decoded image data.

30. (New) An image data processor comprising:

an encoding unit for encoding an input image data of a present frame and outputting an encoded image data;

a delay unit for delaying the encoded image data for an interval corresponding to one frame and outputting a second encoded image data;

a decoding unit for decoding the encoded image data and outputting a decoded image data corresponding to a previous; and

a processing unit for processing the input image data using the encoded image data.

31. (New) A method of image data processing comprising:

encoding an input image data of a present frame and outputting an encoded image data;

delaying the encoded image data for an interval corresponding to one frame and outputting a second encoded image data;

decoding the encoded image data and outputting a decoded image data corresponding to a previous; and

processing the input image data using the encoded image data.

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32. (New) A liquid crystal-display device provided with an image data processor of claim 1.

33. (New) A liquid crystal-display device provided with an image data processor of claim 10.

34. (New) A liquid crystal-display device provided with an image data processor of claim 12.

35. (New) A liquid crystal-display device provided with an image data processor of claim 16.

36. (New) A liquid crystal-display device provided with an image data processor of claim 28.

37. (New) A liquid crystal-display device provided with an image data processor of claim 30.

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